

Reducing Treatment Default Among Tuberculosis Patients in the Philippines

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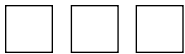
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Introduction



Tuberculosis remains one of the three or four leading causes of death and disability in the developing world.¹ Among developing countries, the Philippines ranks high on the list in terms of tuberculosis (TB) prevalence at, 280 cases annually per 100,000 population.² Philippine Department of Health 1990 data show TB, with a mortality rate of 39 per 100,000 population,³ was the fourth leading cause of death in the country, representing 7.7 percent of all deaths. This figure represents approximately a 30 percent improvement over the decade of the 1980s, but later reports to the World Health Organization show a slight worsening, to 42 per 100,000 by 1993. TB represents about 11 percent of all deaths in the economically productive age range of 15 to 65. The Department of Health (DOH) estimates that one-third of the Filipino population is infected with tuberculosis. It is not known how the AIDS epidemic is affecting the incidence of TB in the country, but indications are the effect will be significant and adverse.

Like most other countries, the Philippines has adopted short-course chemotherapy (SCC) as its standard treatment for patients who do not need the older, 12-month regimen. SCC requires a daily regimen of four drugs for two months, followed by a daily two-drug dose for the next four to six months, depending on when the patient converts from a positive to a negative sputum. The reason for adopting SCC is a belief that shortening

¹ Murray, C. and A. Lopez, *The Global Burden of Disease*, Harvard University, 1996.

² *TB: A Global Emergency*, World Health Organization, 1993.

³ Data compiled from DOH statistics by Er. L. Teoxon, Chief, TB Control Service, DOH.

the regimen significantly increases the rate of patient compliance. Several studies in the Philippines that were completed before SCC became the national policy indicate completion rates under the 12-month regimen range from 38 percent to 45 percent.⁴

Compliance with the drug regimen is crucial. *Mycobacterium tuberculosis* has shown a propensity to mutate toward drug resistance, and defaulting patients almost invariably relapse, often with a drug-resistant strain. Re-treatment requires more expensive drugs, producing a greater financial burden for either the patient or public health care system. Moreover, defaulting⁵ patients remain infectious and constitute a danger to their families and the community; this situation is exacerbated because the infectious organism is then resistant to first-line drugs. Many TB epidemiologists regard obtaining high compliance levels in the population under treatment as even more important to a community's welfare than finding new cases. A rule of thumb is a national TB program that has a default rate of greater than 15 percent must emphasize achieving greater compliance over finding new cases.

Short-course chemotherapy is effective. A 1990 study showed that patients who completed the drug treatment had a sputum conversion rate of 93 percent. The challenge is to obtain high compliance levels. Nationally, the Philippines has reported an 85 percent compliance rate. A cohort analysis of 44,000 patients who began treatment in 1990 in three of the country's 12 regions and the National Capitol Region (metropolitan Manila) showed a compliance rate of 90 percent.⁶ Because the analysis used clinical records of dubious quality, Tuberculosis Control Service (TBCS) staff look on results with some skepticism. Another study of 350 patients who had begun treatment at around the same time showed a noncompliance rate of about 14 percent. However, the Manila metropolitan area's

⁴ *Manual*, National Tuberculosis Control Program, DOH, 1998.

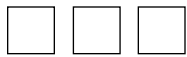
⁵ In the Philippine program, "defaulting" is used to classify patients who are more than three days late collecting their weekly drug supply but then do resume collection. Elsewhere, the term is used to classify patients who fail to resume treatment within one week and thereby endanger the effectiveness of their treatment. This report uses the term in the latter way.

⁶ Valeza, F., J. Lagahid, A. Hernandez, E. Vera, S. Somontan, V. Martinez, and A. Sarmiento, *Factors Influencing Compliance on Treatment in Tuberculosis of Short-Course Chemotherapy*, Philippines Department of Health, 1991.

noncompliance rate has long been believed to be much worse despite easier access to public services. Separate data for the National Capital Region in 1991 showed a default rate of 28 percent.⁷

Recognizing that the default rate in the populous area of Metro Manila was unacceptable, the TBCS agreed to collaborate with the Quality Assurance Project (QAP)⁸ to improve patient compliance with the SCC regimen. The Manila Department of Health joined the project, which began in November 1994.

Research Design



Several relevant studies were completed shortly before the project began. One study (Valeza, et al., 1991) looked at correlations between sociodemographic and service factors and the rate of incomplete treatment. A few sociodemographic variables, such as low and high education levels, correlated with increased and decreased dropping out of treatment, respectively, but more interesting were the service factors. For example, when the infectious nature of the disease and the requisite treatment regimen were explained clearly to the patient, the default rate was more than halved when compared to that of service providers that failed to offer such explanations. Another study⁹ found that 90 percent of respondents believed X-ray was a cure for TB, and 15 percent believed no cure was possible once hemoptysis set in. Some people believed one is born with TB; others believed it was a consequence of bad or evil behavior. Twenty percent of those treated admitted leaving treatment before having spent six months in therapy.

⁷ Data provided to Dr. Blumenfeld by the TB Control Service.

⁸ At the time of this research, the Quality Assurance Project was funded by the U.S. Agency for International Development under Cooperative Agreement DPE-5992-A-00-0052-00. The Quality Assurance Project is operated by the Center for Human Services in Bethesda, Maryland.

⁹ Tiglao, T. and S. Tempongko, *People's Perception of Tuberculosis*. Philosophy Journal of Public Health, Dec., 1991.

A study done in 1989 under the auspices of the PRICOR project, QAP's immediate predecessor, had a direct bearing on the Philippines situation.¹⁰ The study used a structured observation technique based on a thesaurus of service process components developed by the PRICOR project. The study found only 10 percent of 244 patients observed were told directly by the service provider they had tuberculosis (in the Philippines, there is a stigma attached to having TB). Filipino sociologists believe this indirect approach to informing the patient enables a denial of the problem and facilitates defaulting from treatment as soon as the patient feels better, which is long before a cure. Moreover, after meeting with the health worker and receiving the diagnosis (either directly or indirectly), only 73 percent of patients leaving the health center knew how long the full treatment would last, and only 56 percent understood why it was important to them and their families to complete the full six-month regimen. This occurred despite access by health workers to a section in the national manual on TB that gives a fairly detailed set of counseling instructions.

To get firsthand information on reasons for patients' dropping out of therapy, a focus group facilitator from the DOH Health Education Division was asked to convene four focus groups—two of known compliers and two of defaulters. The facilitator and QAP developed guidelines for the focus groups that concentrated on knowledge and attitudes regarding the disease and its treatment and on the difficulties patients have with compliance. The facilitator concluded there was a significant dichotomy between the two populations. The compliers expressed a need to get better so they could go back to work. They felt taking their medication was an obligation to the family. They also knew more about the drug regimen, particularly its duration. Overall, they seemed to be more optimistic about the outcome of treatment. In contrast, the defaulters projected an attitude of helplessness and hopelessness, a feeling fate had brought them this problem and struggling against it was useless. They also knew less about the duration of the treatment.

Although the Philippine National TB Control Program manual specifies any patient who is more than three days late in collecting his weekly drug

¹⁰ Valeza, F., M. Mantala, and S. Blumenfeld, *Application of Systems Analysis to Identify Service Quality Problems in the Philippine National Tuberculosis Control Program*, presented at the 119th Annual Meeting of the American Public Health Association, 1991.

supply should receive a home visit, discussions with many health center workers made it clear this is rarely done. This information, combined with information from the focus groups, convinced the TBCS/QAP team that a preventive rather than a remedial approach would be more effective. The team also concluded better patient education and more standardization of the patient-provider encounter were necessary. Thus, the team determined a new tool was needed to give patients all the information they needed, in a comprehensive manner, to comply with six months of treatment. As a result, a desktop flip chart was developed (see Appendix I). The flip chart clearly states that the patient has tuberculosis, outlines the risks to the patient and the patient's family if the disease is left untreated, explains the nature and duration of the treatment, outlines the consequences of dropping out of treatment early (despite feeling much better), and reassures patients the disease is curable. Some of these messages correlate well with principles specified in a U.S. Centers for Disease Control document aimed at increasing compliance in the United States.¹¹ The flip chart is designed to be placed on the work surface between the patient and the provider. The provider turns pages while reading the text aloud; the patient sees simple, one-panel cartoons that reinforce the message. The Media Section of the DOH Health Education Division produced the cartoons.

At the time the flip chart was being designed, the TBCS also had begun discussing the potential effectiveness of a contract between the patient and the health care system. The concept takes advantage of an aspect of Filipino culture that attaches considerable importance to recognition by those in authority. This idea was refined and eventually a contract was designed with a number of features to enhance its validity. First, the contract was printed on high-quality, heavy paper rather than on commonly used standard, rough-finish paper. Second, it had spaces for the signatures of the patient, health center provider, Manila City Health Officer, and Mayor of Manila. Third, the document had a prominent section titled, "Certificate of Completion of Therapy," which declared the patient had been found free of active tuberculosis. This section was completed and signed after the final negative sputum and completion of treatment.

¹¹ Snider, D. and M. Hutton, *Improving Patient Compliance in Tuberculosis Treatment Programs*, Department of Health and Human Services, U.S. Centers for Disease Control and Prevention, 1989.

The contract had several other interesting features. First, it stated at the top in bold, capital letters: “Your symptoms and our laboratory results tell us that you have caught tuberculosis. But tuberculosis can definitely be cured. However, to be cured you must take the medicine every day for the next 6 months. If you miss taking your medicine, you may not be cured. If you take your medicine regularly, you will soon feel better, but you are not yet cured. Do not stop taking your medicine until your health worker tells you it is safe to do so!” Next, in the section signed by the health care sector representatives, the contract described the responsibilities of the health service system—namely, to provide all the medicines required to cure TB and all other necessary services at no cost to the patient. In the area signed by the patient, the contract stated the patient recognizes the serious threat that TB constitutes to him and to his family and he therefore promises to collect the drugs every week and to take them every day as prescribed. The contract is shown in Appendix II, page A-15.

The effectiveness of the flipchart and contract was tested at eight health centers in Manila that were selected more or less at random. (To minimize transportation problems—Manila is a large city—a few health centers far from the DOH compound in Manila were excluded from consideration.) Two health centers were assigned to each intervention; the remaining two served as comparisons. Each health center selected 25 newly enrolled patients to follow for the next six months until they either completed treatment or defaulted.

Records Study

The Department of Health distributes a standard clinical record form to all health centers in the country for registering TB patients, recording lab results, and tracking dates of drug collection. In the course of identifying compliers and defaulters for the focus groups, QAP and DOH staff reviewed many forms at a number of centers. It did not take a discerning eye to see something was dramatically wrong. First, out of nearly 100 apparent defaulters contacted at home, almost all claimed they had completed treatment, despite what their clinical records showed. Second, although metropolitan Manila TB supervisors stated all the health workers had been trained in the use of the clinical record (and the workers

verified the training), haphazard data entry made it ambiguous as to whether a patient had completed treatment or had defaulted. For example, spaces intended to record weekly collection of drugs sometimes were used to show daily intake of medication. In addition, dated spaces reflected the monthly collection of drugs (i.e., the same date on four consecutive lines), while at the same time, the staff claimed the patient had come in every week in that period. A number of records had drug collection dates so regular (i.e. every seven days, month in and month out), they looked improbable, especially when the entry dates were in the same hand and pen over several months. The reviewers' suspicion that the records were being completed later was confirmed at one health center when they found a health worker completing records.

Because of the project reliance on health center clinical records to identify defaulters, the DOH/QAP decided the team had to help the health care providers keep more accurate records before the tests of the two interventions could go forward. The first task was to find out what kinds of errors were being made. Two hundred fifty-four records at four health centers were examined collectively for errors. Table 1 shows numerous errors were made by each center. Each item corresponds to a field on the clinical record. The first group of items shows percentages in which the denominator is the number of records reviewed at that health center (HC). The second group of items has no known denominators; for this group, absolute numbers are shown to provide a feel for the magnitude of the errors. For example, the total number of records at HC II showed a pretreatment sputum sample had been taken; at least seven of the 57 records showed a sample had been taken but the date left unrecorded. The variation among centers—and therefore among health workers—with regard to error types and frequencies is shown in Table 1. Among the 254 records examined, errors were found in every item of information on the record. (In fact, only two perfect records were found; 99 percent of the records had some defect.) Some of the record errors were trivial, such as case numbers not specified in the correct format even though the case was still identifiable. Other errors, however, created major obstacles to effective case management and/or the health center's knowledge of the default rate. Examples of significant errors are failure to record whether a patient is a new, relapsed, or transfer patient ("type of patient" in the table) or whether the patient had been treated previously. The patient's treatment must take this

information into account. In addition, many records did not show information on household contacts. Workers are supposed to reach out to household members to check them for symptoms.

For purposes of individual case management and to calculate the rate of defaulting, the section of the clinical record showing the regularity of drug collection is essential. The National TB Control Program standard is weekly collection, except under unusual circumstances (e.g., if the patient planned to be away from home for an extended time). Generally, under such circumstances, the health worker may give the patient a supply of drugs sufficient to cover the time away. If the patient planned to be away for more than a month, the worker was supposed to give the patient a

Table 1. Errors Identified in TB Case Management Records at Four Health Centers

RECORD ITEM	HC I n=35	HC II n=57	HC III n=21	HC IV n=141
No. of incorrect cases	100%	96%	95%	99%
Date card opened, not completed	40%	2%	0%	0%
No age	0%	2%	0%	0%
No sex	0%	2%	5%	9%
No weight	100%	19%	5%	99%
No address	3%	0%	5%	1%
No occupation	0%	4%	5%	83%
Number of household contacts not recorded	94%	32%	19%	96%
Previous treatment not recorded (Y/N)	0%	32%	0%	35%
Type of patient not recorded	0%	16%	29%	0%
Diagnosis not recorded	100%	9%	48%	9%
Type of regimen not recorded	3%	18%	29%	72%
No date treatment started	23%	2%	0%	57%
If pre-treatment sputum exam, no date (no.)	0	7	1	22
If pre-treatment sputum, no result recorded (no.)	0	3	1	9
If pre-treatment x-ray, no date (no.)	0	11	2	7
If pre-treatment x-ray, no result recorded (no.)	0	4	1	5
If follow-up sputum, no date (no.)	0	0	0	10
If follow-up sputum, no result recorded (no.)	0	0	0	9
If treatment stopped, no reason recorded (no.)	0	2	1	75

referral to a local health center. The referral includes the patient's condition and treatment status. The drug collection section of the clinical record has 48 lines to record either 24 weeks of collection under SCC or 48 weeks of collection under the standard regimen. Each line has divisions to show the number of treatment weeks, the date that collection is due, the actual date of collection, the number of days by which the patient has missed the collection target date, and action taken by the health center staff if drug collection is missed by more than three days. Table 2 is a synopsis of the drug collection records.

As shown in Table 2, two health centers correctly require patients to collect their drugs on a weekly basis. Unfortunately, workers at Health Center II appear routinely to record the collection date as being the same as the due date. The reviewers came to this conclusion because most cards had perfectly matching due and actual dates, week after week for months—a most unlikely circumstance. One of the health center's workers said she thought it was better to show a good collection record rather than an erratic one. (The team didn't investigate why she thought so. She simply explained that it is "better" to show an accurate record so the

Table 2. Drug Collection Tracking Record

RECORD ITEM	HC I n=35	HC II n=57	HC III n=21	HC IV n=141
Collection Due Date				
Correctly completed(weekly)		91%	100%	
Monthly dates inserted	100%			94%
Erratic pattern or not shown at all		9%		6%
Actual Date of Collection				
Appears to record actual		4%	100%	76%
Appears to predict due date	100%	82%		18%
Erratic pattern		14%		6%
Days Missed Marked				
Appropriately; none noted	100%	77%	71%	52%
All appropriate noted			5%	11%
Some not noted		23%	24%	37%
Action Noted				
Appropriately; none noted	100%	77%	81%	53%
All appropriate noted				11%
Some not noted		23%	19%	36%

program supervisors can see problems and help the workers correct them.) Table 2 shows only one of the four health centers was using the record system the way it had been designed, recording the weekly collection and actual collection date. Even this record system was slightly flawed in that a quarter of the records did not mark the follow-up action trigger (more than three days past the collection due date).

The study results and the original cursory examination of records at other health centers indicated that unless improvements were made at the health centers participating in the main study, their records were not likely to be reliable enough for the team's purposes. The National Capital Region TB supervisors said they saw no reason to believe that these four centers were either much better or worse than most centers in the region. Thus, a brief but intensive training session was organized at each of the eight participating health centers on the use of the clinical record. The duration of this one-on-one session was open-ended and lasted until the TB providers at the health center demonstrated proficiency (usually in one or two hours).

Intervention Study

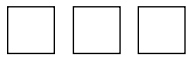
Once the team determined the records would be as accurate as possible, they were ready to test the effectiveness of the flip chart and contract. The interventions study began in February 1995. An intervention was assigned to each health center at random and the staff informed about the project. All TB service providers were given instructions and practice in the use of the flip chart and contract.

The availability of drugs was an issue. The country has a history of health centers running out of TB drugs and other drugs and of having no stock for weeks. Such shortfalls would have defeated efforts to identify the effect of the flip chart and contract. Fortunately, the country was moving into a period when the government was able to purchase these drugs, and the problem of intermittent shortfalls was more a result of logistics than of scarcity. Therefore, the Director of the TB Control Service was able to guarantee drugs could be moved from central sources to the health centers on short notice, if necessary. As a result, lack of drugs was not an issue until late in the study, when the national supply again became erratic.

Tracking of newly diagnosed TB patients began in March 1995. Approximately 25 patients at each health center were followed. Staff from QAP and TBCS visited each health center each month, examined the clinical records, and copied data regarding drug collection. The staff also took the opportunity to go over any errors in record keeping with the service providers to maintain accuracy. Within a few months, most of the health centers had reached the minimum of 25 new patients for tracking. Some continued beyond the target and maintained data on more than 25 patients. Two were unable to reach the target in the time allotted.

The study tracked 239 patients until they completed their treatment, transferred from the center or, in a few cases, died. The team then copied the data from the clinical record onto a form devised for the purpose and archived the data in Microsoft Access for analysis.

Results



Of 239 patients initially entered into the study, 17 transferred to another health center (or indicated they would), and two died. The cause of death is unknown. These 19 were deleted from the data set under the assumption that transferring and dying probably have little to do with the health center's actions. Of 220 remaining patients, 144 were male and 76 female. This is a slightly higher ratio of males to females than at least one other study had shown (56 percent males), but the team did not attach much significance to this difference. The age range for this set of patients was 12 to 84 years; the median age was 40.

Originally, the study was designed to follow every patient enrolled for the full term of treatment until discharge from care, approximately 184 days after the beginning of treatment, or, until the patient defaulted. However, several factors changed this plan. First, improving the quality of record keeping delayed the study. Second, an exceptionally heavy winter monsoon occurred early in 1995, keeping the QAP staff from a final visit to two health centers located in low-lying areas of the city. Third, QAP activities in the Philippines ended in 1995. This prevented the team from waiting

out the flooding of the two health centers. Consequently, TBCS and QAP decided to count as compliers those patients who had demonstrated a systematic pattern of drug collection for at least 10 weeks. Anyone who began treatment and did not continue regularly for at least 10 weeks was counted as being in default of treatment. Table 3 shows the distribution of compliers and defaulters by the number of days in the program. This interval is calculated from the date treatment began until the first date drug collection was more than three days late (if it was not resumed at least within a week of the target collection date).

Table 3. Compliers and Defaulters by Number of Days in Treatment		
Days	No. of Compliers	No. of Defaulters
0	0	5
1-70	0	13
71-120	30	14
121-180	115	17
>180	24	2
N	169 (76.8%)	51 (23.2%)

Table 4. Rate of Compliance by Sex			
	Compliers	Defaulters	% Compliance
Males	113	31	78.5%
Females	56	20	73.7%

Table 4 shows the compliance rate by sex (males 78.5 percent, females 73.7 percent). The difference is not significant. Table 5 (see p. 13) shows the compliance rate for each of the eight health centers. “N” is the total number of patients who were tracked at each health center, while “adjn” is the number of patients left in the sample after removing patients who had transferred out of the center’s jurisdiction or who had died during the course of treatment. Rates of default range from 10 percent to 31.2 percent. The table becomes more interesting, however, when it is arrayed in order of percentage of compliance. Table 6 (see p. 13) shows this rearrangement.

Table 5. Rate of Compliance by Health Center

Facility	n*	adjn**	No. Compliers	%Compliance	Intervention
Bagong	20	20	18	90.0	Contract
Belmonte	28	25	17	68.0	None
Maria Clara	32	32	22	68.8	Flip chart
Palomar	39	39	33	84.6	Contract
Posadas	37	32	22	68.8	None
Tondo	37	31	25	80.6	Both
Velasquez	35	30	23	76.7	Flip chart
Vicencio	11	11	9	81.8	Both

*n** = number of patients in sample

*adjn*** = number of patients after adjustment for patients who died or transferred

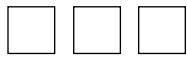
Table 6. Health Centers in Order of Rate of Compliance

Facility	Compliance Rate	Intervention
Bagong	90.0%	Contract
Palomar	84.6%	Contract
Vicencio	81.8%	Contract and Flip chart
Tondo	80.6%	Contract and Flip chart
Velasquez	76.7%	Flip chart
Maria Clara	68.8%	Flip chart
Posadas	68.8%	None
Belmonte	68.0%	None

The results of Table 6 are striking. The health centers were assigned an intervention—or none—randomly. It seems improbable that all four health centers using the contract would have higher compliance rates than the other centers. If the sample of eight health centers is viewed as a dichotomy (i.e., either using a contract or not), a one-sample t-test can be applied to test the probability of this distribution occurring by chance. The test results indicate a probability of well under 0.05. Table 7 (see p. 14) combines the results of the pairs of interventions as if each pair were a single sample. This further complicates the order of effectiveness of these tools.

Table 7. Combined Pairs Results		
Intervention	Combined Pair Data	Compliance Rate
Contract	18/20 + 33/39 = 51/59	86.4%
Contract and Flip chart	25/31 + 9/11 = 34/42	81.0%
Flip chart	22/32 + 23/30 = 43/62	69.4%
None	17/25 + 22/32 = 39/57	68.5%

Discussion



The outcome of this research is somewhat surprising if patient education is believed to be important in promoting compliance in TB therapy. The flip chart seems far less effective than the contract and not much more effective than the standard approach to educating the patient, which the QAP observers had seen as haphazard and the PRICOR systems analysis had viewed as somewhat deficient. There was no ready explanation for the apparent failure of the flip chart to reduce the default rate. Although the team was reluctant to abandon efforts to improve communication to TB patients, it is not clear why the desktop flip chart was ineffective, given the emphasis on issues that research had found to be important: a direct statement concerning the patient's illness, leaving no room for denial; negation of hopelessness, with an equally direct statement regarding the disease's curability; clear information about the treatment regimen; and forceful statements about the dangers of leaving treatment prematurely. (The colorful cartoons were supposed to enhance the force of the spoken text.) The team recommended TBCS and the DOH Health Education Division critique the flip chart to determine why it was less effective and if it could be improved upon.

It may be in this population, which was composed largely of lower socioeconomic groups, the contract provided enough gravity to impress the patients significantly. It is possible the contract would have less impact on a more sophisticated target population; however, they generally are not the ones who use government health centers. Thus, it may be worthwhile for the Department of Health to ask the provincial health offices to

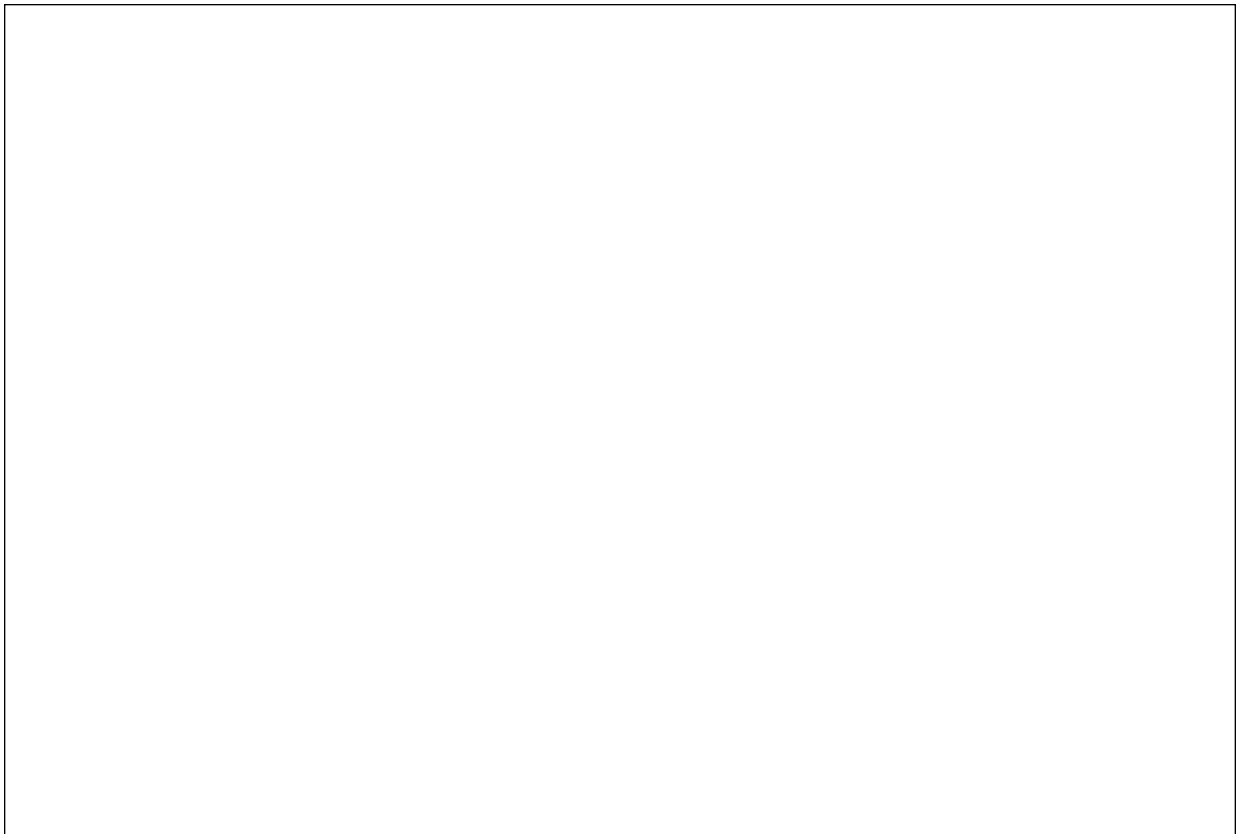
participate in a wider test of the contract. (Provincial health offices have authority to accept or reject suggestions by central government departments, such as the DOH).

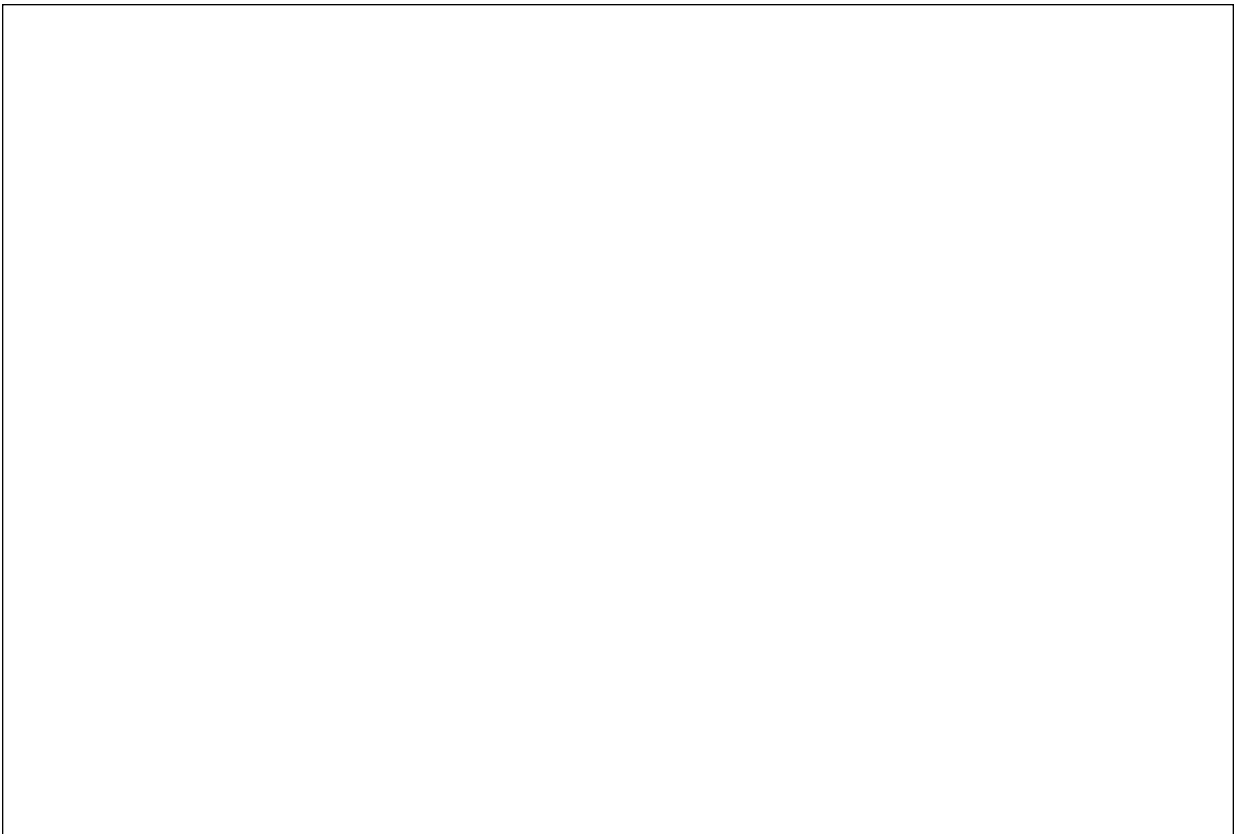
This research was conducted to compare two tools designed to improve the compliance rate of TB patients, and a clear difference emerged. Nevertheless, it is important to note even the contract barely managed to push compliance rates up to a level regarded by TB programs as acceptable. A compliance rate in the mid-80s, while an improvement in the context of the Philippine program, still is only marginally acceptable from an epidemiologic viewpoint.

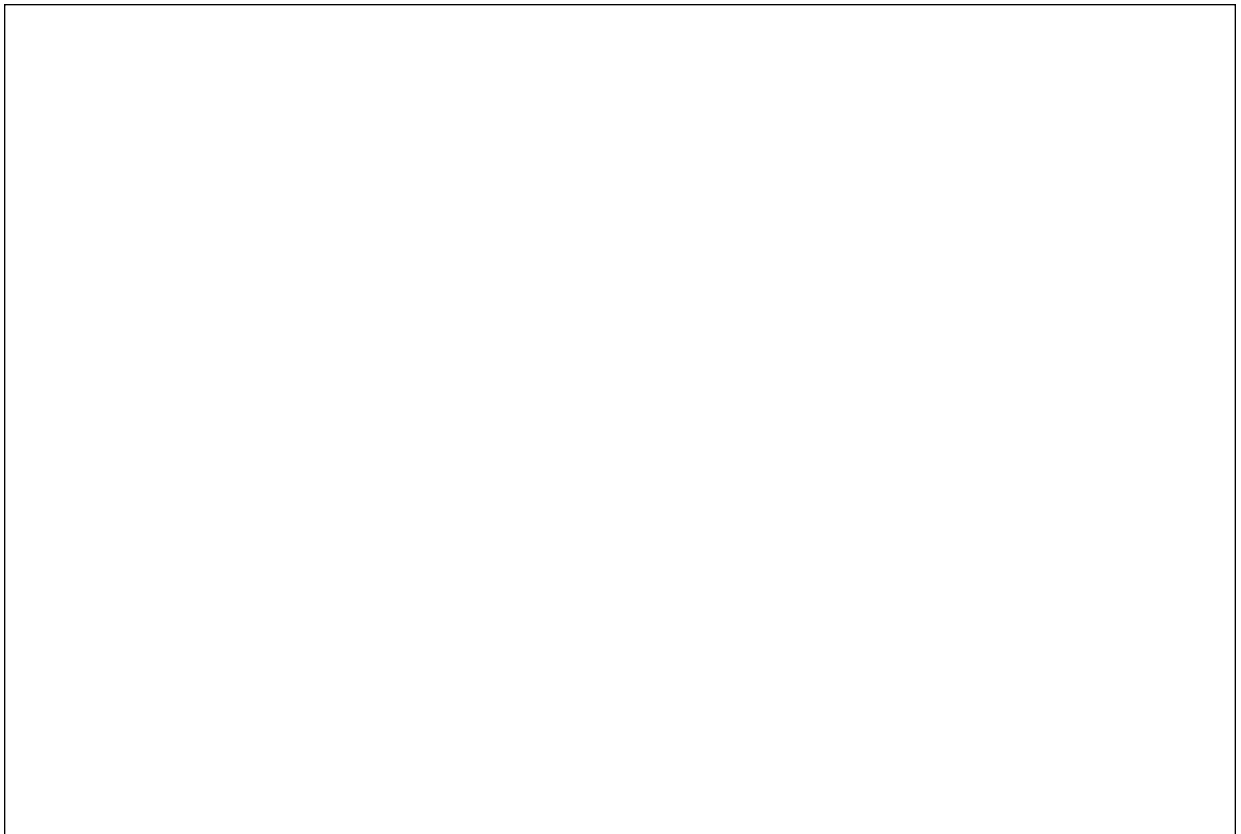
APPENDIX I

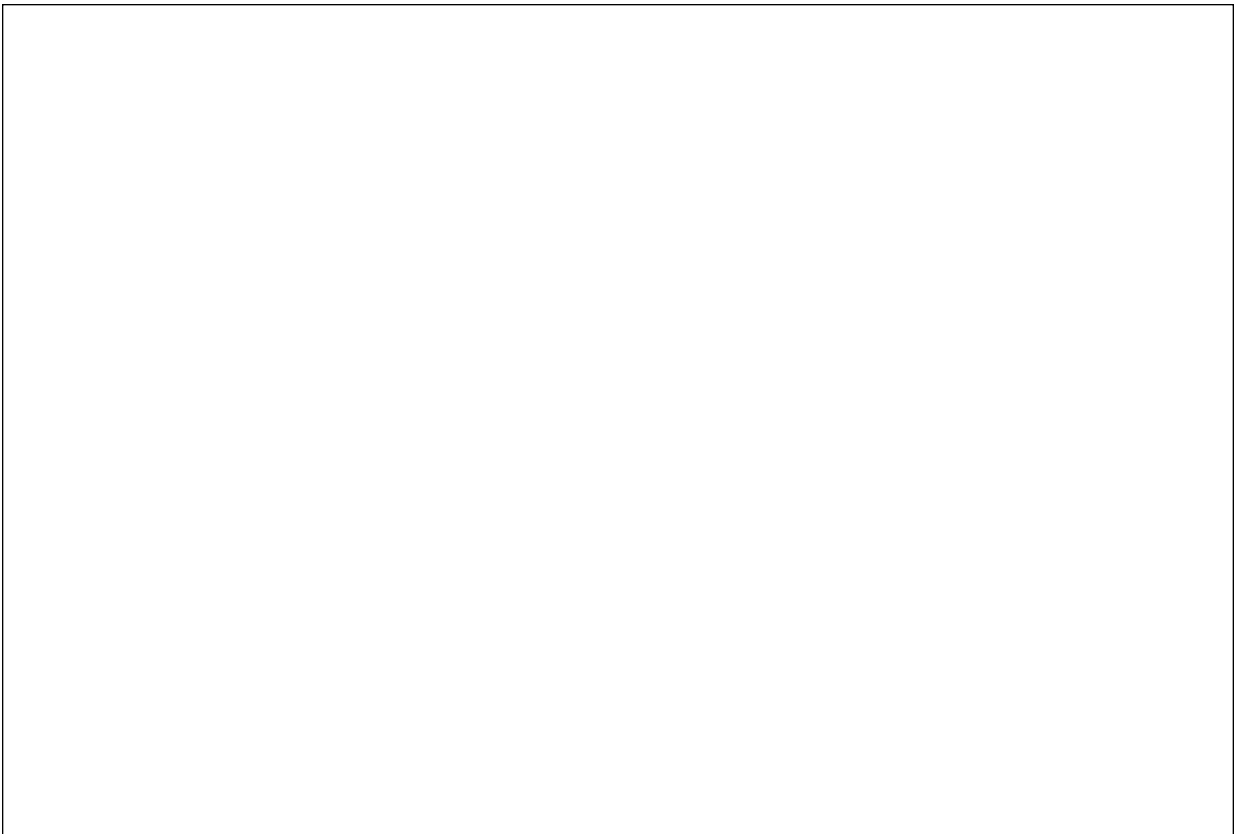
National Tuberculosis Program Counseling Cards

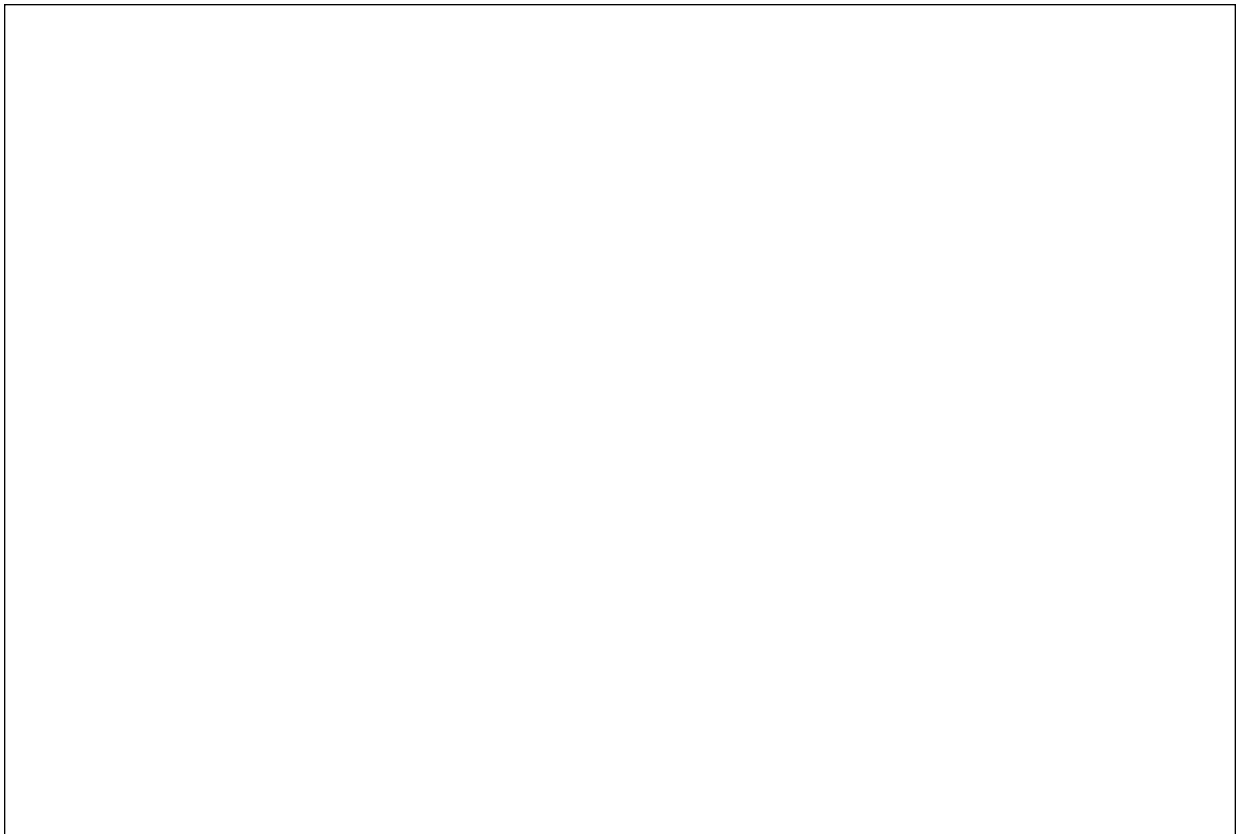
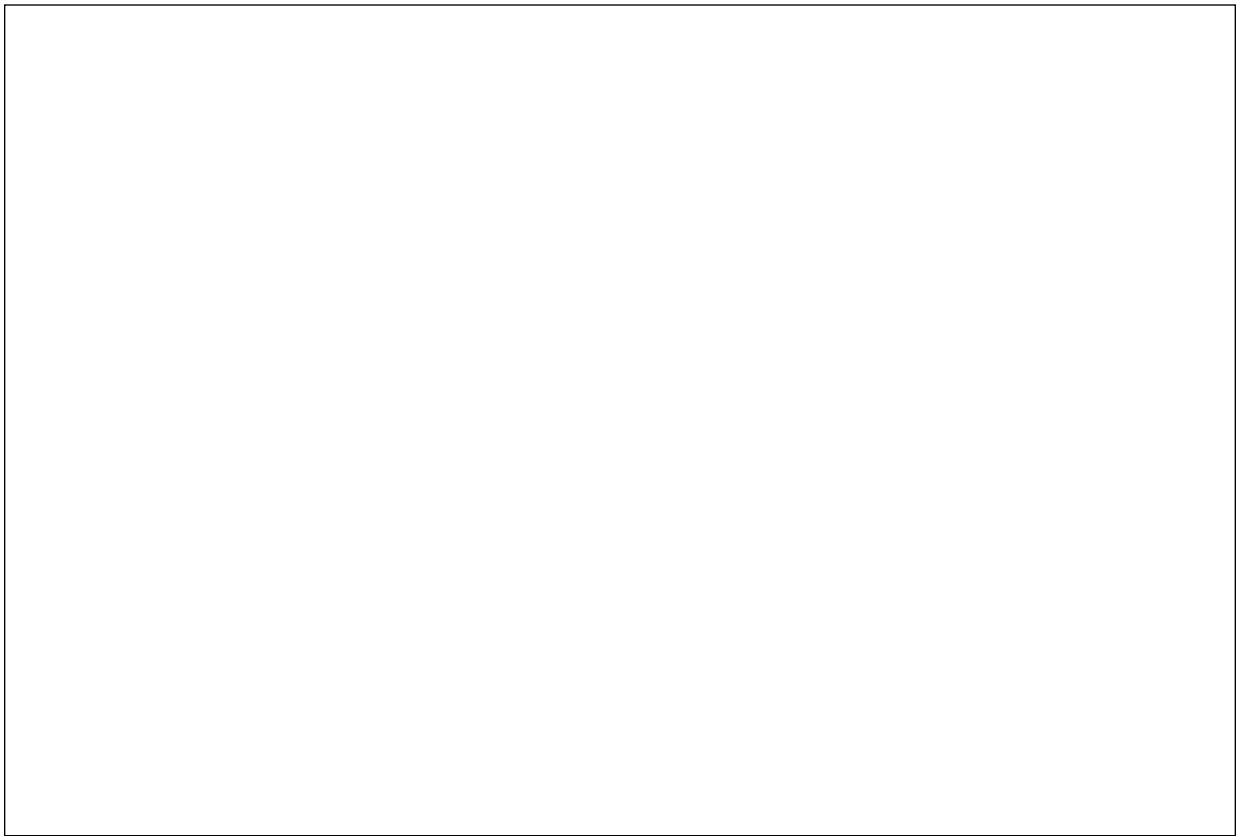
*These are actual copies of the Tuberculosis
Program Counseling Cards. They have not
been edited from their original form.*

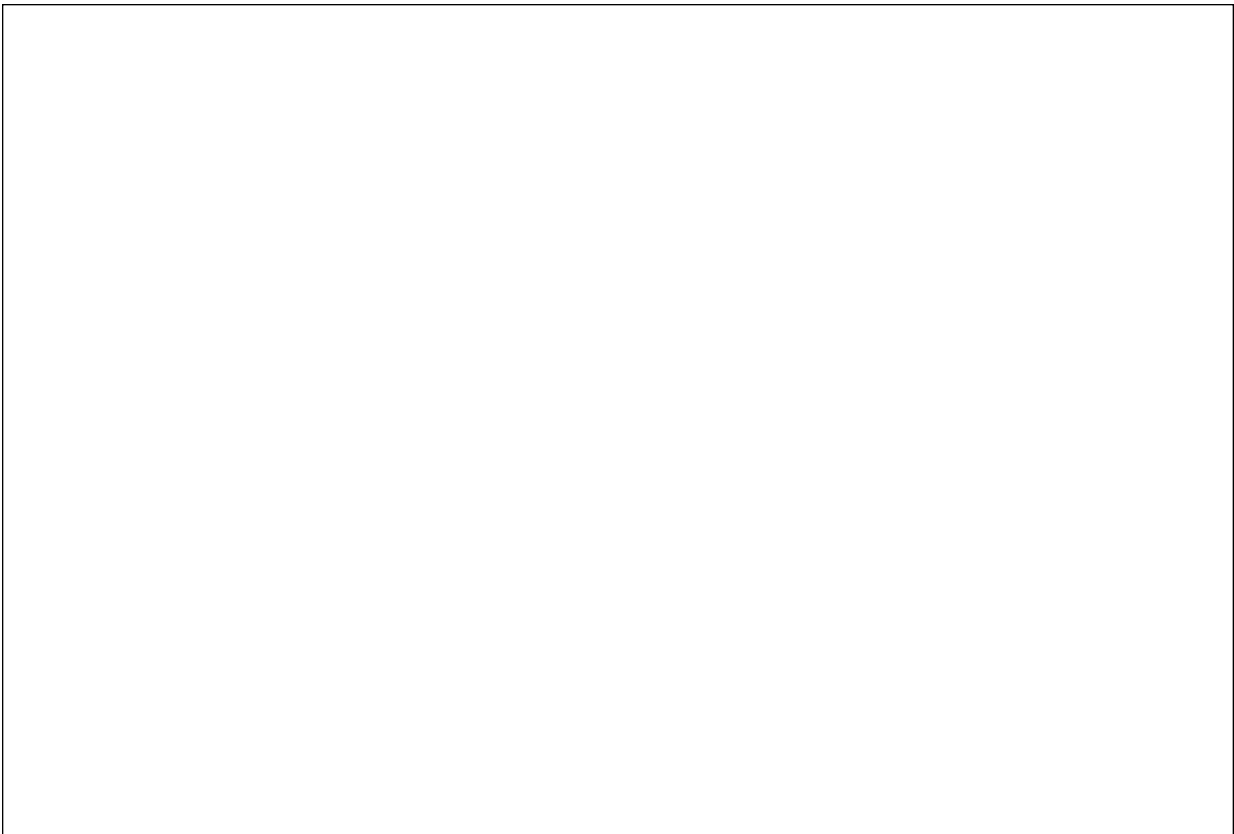


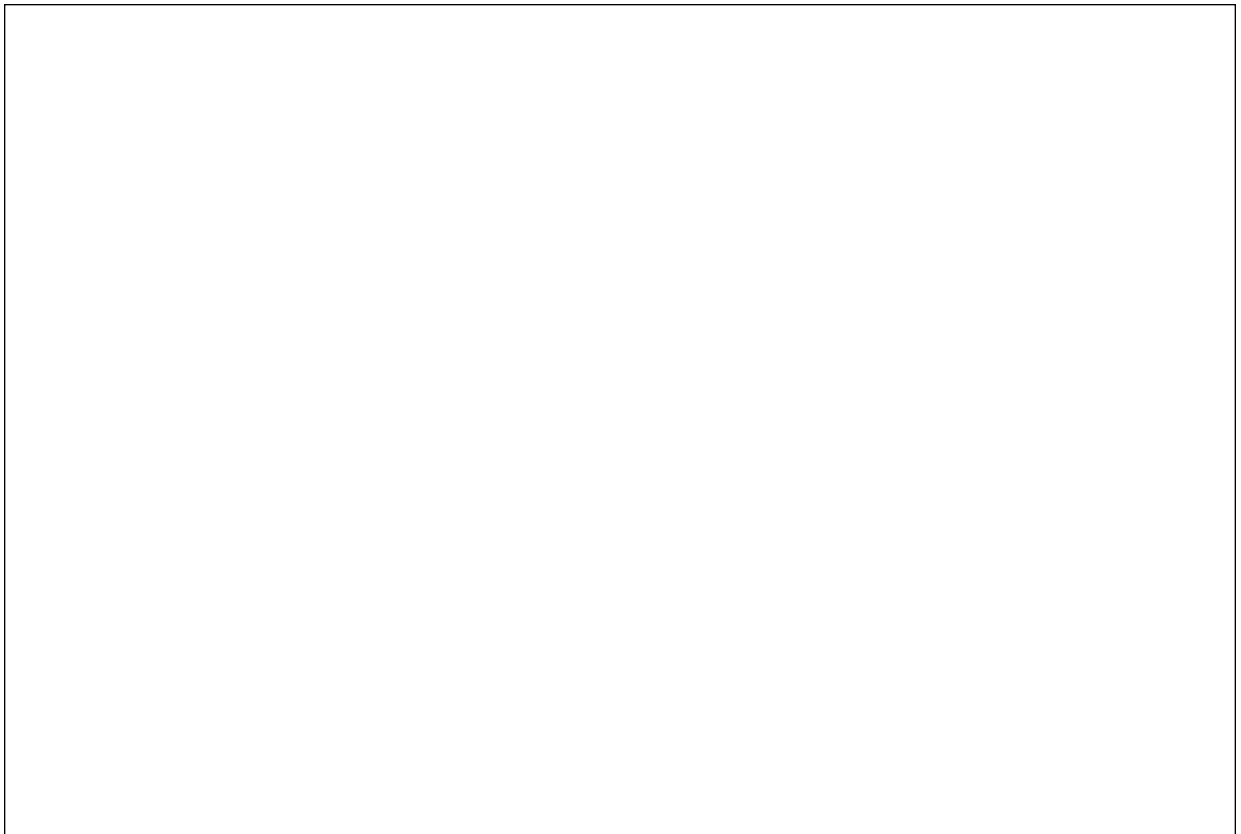


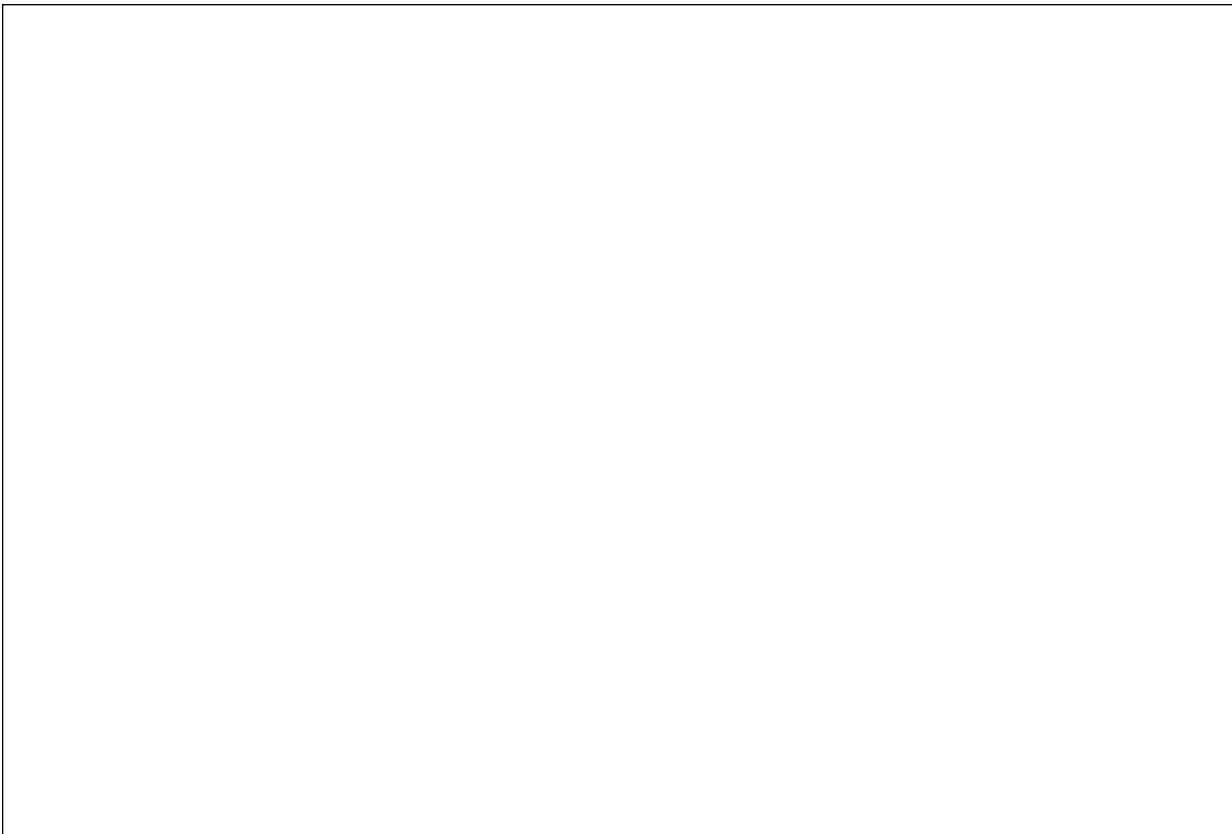


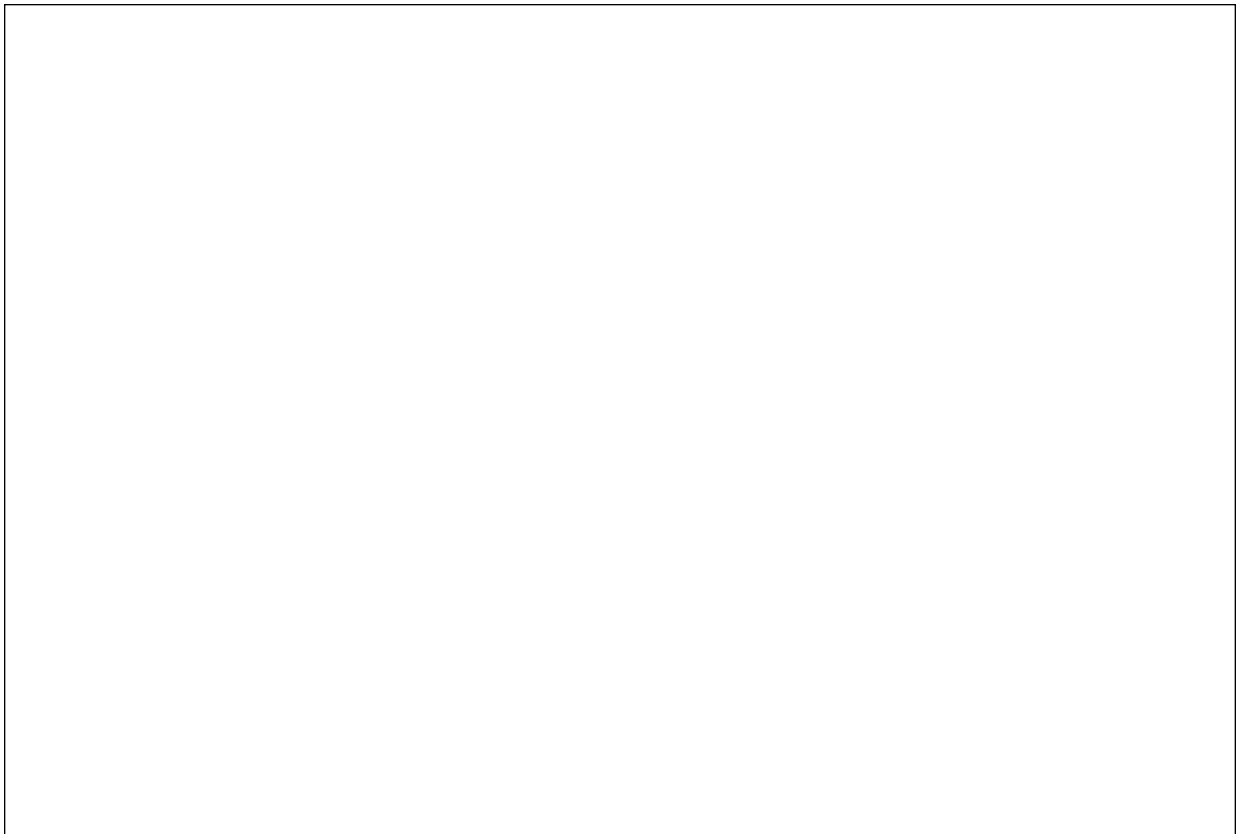


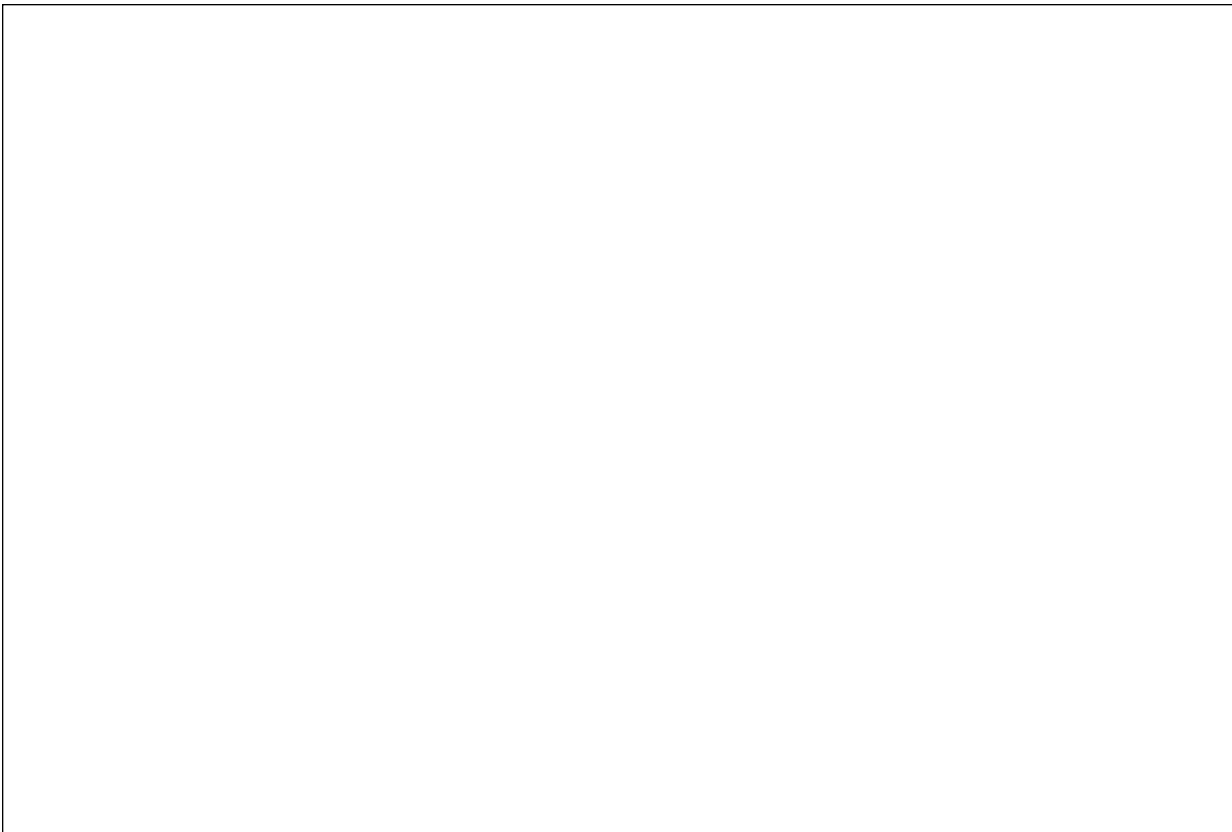












APPENDIX II

Patient Agreement and Drug Collection Record

AN IMPORTANT MESSAGE TO OUR PATIENT

YOUR SYMPTOMS AND OUR LABORATORY RESULTS TELL US THAT YOU HAVE CAUGHT TUBERCULOSIS. BUT TUBERCULOSIS CAN DEFINITELY BE CURED. HOWEVER, TO BE CURED YOU MUST TAKE MEDICINE EVERY DAY FOR THE NEXT 6 MONTHS. IF YOU MISS TAKING YOUR MEDICINE, YOU MAY NOT BE CURED. IF YOU TAKE YOUR MEDICINE REGULARLY, YOU WILL SOON FEEL BETTER BUT YOU ARE NOT YET CURED. DO NOT STOP TAKING YOUR MEDICINE UNTIL YOUR HEALTH WORKER TELLS YOU IT IS SAFE TO DO SO!

AN AGREEMENT BETWEEN MR./MRS. _____ AND THE HEALTH DEPARTMENT OF THE CITY OF MANILA

Having confirmed that the above-named patient has contracted tuberculosis, the staff of this health unit agrees that it will, to the best of its ability, provide at no cost to the patient the prescribed medicines for curing tuberculosis, and will also provide the various tests necessary to check on the progress of the treatment.

_____, _____, _____
(Health Worker) (Title) (Facility)

For the City of Manila, _____, City Health Officer
Arellano T. So, M.D., M.B.A.

Also for the City of Manila, _____, Mayor
Alfredo S. Lim

For the Barangay of _____, _____, Barangay Captain.

In return, recognizing that tuberculosis is a serious disease that threatens my own health and the health of my family and community, to the best of my ability I WILL COLLECT THESE ANTI-TB MEDICINES EVERY WEEK AND WILL TAKE THEM EVERY DAY until my health worker tells me that I have been cured of my tuberculosis. My health worker and I will keep a record of my medicine collection on the other side of this agreement. I will bring this agreement/record with me each time I collect my medicine.

Signed by Mr./Mrs. _____, Patient (or parent/guardian if patient under age 18)

residing at _____
(Street/Barangay)

on _____.
(Day/Month/Year)

CERTIFICATE OF COMPLETION OF THERAPY

This is to certify that _____ has successfully completed therapy and is declared free of active tuberculosis.

_____, _____
(Medical Officer) (Facility)

(Date)

DOH TUBERCULOSIS CONTROL SERVICE/CITY OF MANILA/USAID QUALITY ASSURANCE PROJECT



DRUG COLLECTION RECORD

Week No.	Collection Due Date	Health Worker Initials	Actual Collection Date	Patient Initials
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
11				
12				
13				
14				
15				
16				
17				
18				
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34				

[A COOPERATIVE PROJECT OF DOH/TBCS, THE CITY OF MANILA, AND THE USAID QUALITY ASSURANCE PROJECT]

